

Anhinga melanogaster. Indian Darter.

Seen on Foy reservoir.

Xenorhynchus asiaticus. Black-necked Stork.

Saw 2 large flocks travelling north, flying high, on 18-5-45 and on 1-6-45.

Leptoptilos (?). Adjutant Stork.

Only once seen on Foy reservoir.

Egretta (?). Egret.

Only saw these at a distance and generally from moving trains and am not sure of identification, but am fairly certain the one which was very common in paddy-fields was *E. garzetta*, the Little Egret.

Ardeola grayi. Paddy Bird.

Common.

Ixobrychus cinnamomeus. Chestnut Bittern.

Seen once on Foy reservoir.

Podiceps ruficollis. Little Grebe.

Fairly common on the larger expanses of water.

BUTTERFLIES OF SOUTH BIHAR

BY

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(With a map)

Bihar is a Province that may be conveniently divided into two distinct collecting subdivisions, North Bihar and South Bihar. The Ganges River passing through Bihar, may be accepted as the border between them.

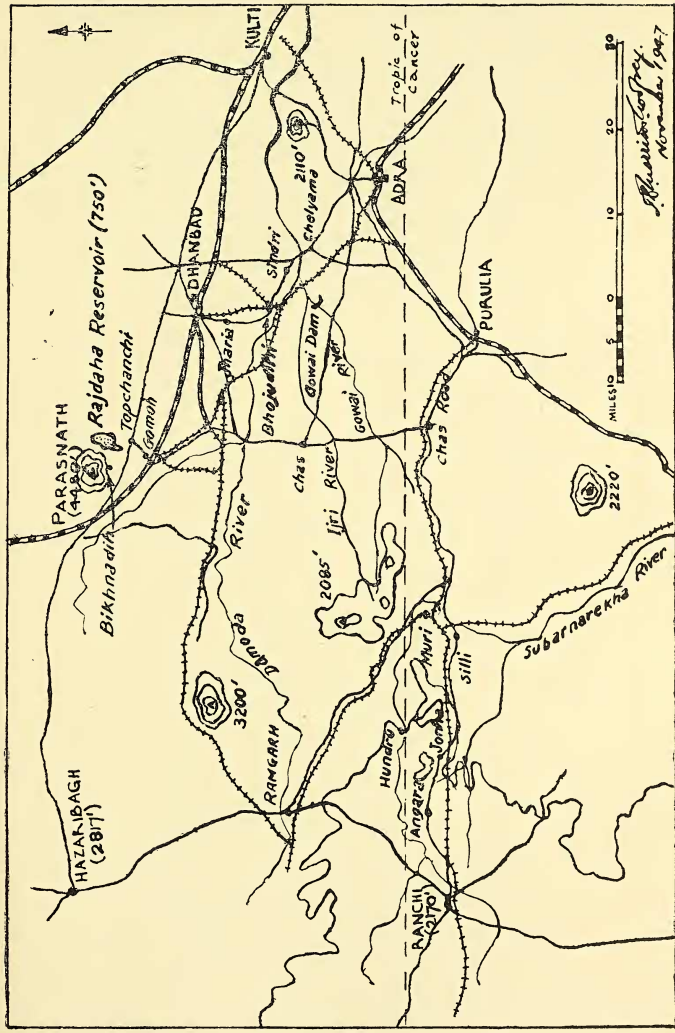
This list covers South Bihar, and includes the districts of Patna, Ranchi, Hazaribagh, and Manbhum.

In South Bihar, the localities are very much restricted, in fact, the place where the largest number of species will be taken is in the jungles surrounding Rajdaha Reservoir, in the district of Manbhum.

Rajdaha Reservoir is an artificial lake formed by the construction of a dam, 950 feet long, across the mouth of a valley in the Parash-nath Hills; the lake is 750 feet above sea level, and is 20 miles from Dhanbad on the Grand Trunk Road. Rajdaha Reservoir is commonly referred to as 'Topchanchi' in the District. Topchanchi is the name of a village on the Grand Trunk Road, and the reservoir is about a mile from this place.

It will be interesting to note that although the altitudes in South Bihar range from approximately 200 feet to about 2000 feet, the species listed here are all available at an altitude of approximately 750 feet above sea level.

I have also visited the remote areas up the Domodar, Gowri, and Ijri Rivers, but the species to be found along the valleys are usually of the commoner kinds, although I have come across *Charaxes polyxena imna* But. on several occasions in these valleys.



RANCHI-HAZARIBAGH-MANBHUM DISTRICTS

Note.—The area covered by the list is east of the line Purulia-Adra-Kulti

Other localities that may be given a further trial are those in the vicinity of the Johna and Hundru Falls, both of which are within 50 miles of Ranchi. Unfortunately I was not able to make frequent visits to these falls, but they should prove to be good collecting grounds. Of all the places I was able to visit in South Bihar, I found Rajdaha Reservoir area to be the best, and I therefore decided to concentrate on this locality.

Many different kinds of butterflies can be taken between Parash-nath peak (4480 feet) and Rajdaha Reservoir. This list has been prepared from the bulk of the species caught in this locality.

It is of interest to mention that *Nacaduba dana* deN. *Pantoporia selenophora kanara* Evans, and *Halpe moorei moorei* Watson, to my knowledge have never been recorded in this part of India at all.

The area around Rajdaha Reservoir is surrounded by jungle. It is humid, has open spaces combined with shrub jungle, watercourses and streams. Practically every species of butterfly to be taken in South Bihar is likely to be found in this locality.

The best season for collecting in South Bihar, at the localities I have mentioned, is undoubtedly from the commencement of the rains (mid-June) to November, the best month being September. I do not necessarily mean that all the species will be taken in the month of September when I say this is the best month, because *Cyrestis* does not appear until the end of October, and *Neptis* in November, but the majority of the species can be taken in September. February to April are not good months for collecting in South Bihar.

For identification purposes, I have used Evans's letters and figures as from his book 'Identification of Indian Butterflies'.

I am indebted to my friend M. A. Wynter-Blyth, M.A. (Cantab)., for the assistance he has given me in checking specimens with the list I have prepared.

PAPILIONIDAE

1. (A2.9) *Tros hector* L.
2. (A2.10β) *Tros aristolochiae aristolochiae* F.
Aristolochiae may be taken in most places in the province throughout the year. Particularly common during the rainy season.
3. v. *diphilus*, Esp.
Common in the vicinity of the Domodar River.
4. (A2.10δ) *Tros aristolochiae sawi* Nov.¹
Fairly common.
5. (A3.5β) *Chilasa clytia clytia* L.
Not a common butterfly. I have only seen and caught it at Rajdaha Reservoir in August.
6. v. *dissimilis* L.
Not common, appears in August.
7. (A4.1β) *Papilio polymnestor polymnestor* Cr.
Not common, caught Rajdaha Reservoir 28-4-1947.
8. (A4.25) *Papilio polytes romulus* Cr.
The ♀ form with white bands UPF is distinctly rare.

¹ As this is a local race peculiar to Car Nicobar, M. A. Wynter-Blyth considers its occurrence here *most* improbable.—EDS.

9. ♀ v. *cyrus* F.
 10. ♀ v. *stichius* Hub.
Polytes is common and may be taken in jungle districts of the province.
Cyrus is not common.
Stichius is distinctly rare. I have only seen and caught one, and that was in the month of September.
11. (A4.27) *Papilio demoleus demoleus* L.
 Very common over the whole province and can be taken throughout the year.
12. (A5.4) *Pathysa nomius nomius* Esp.
 Common during the months of June and July. Fond of settling on damp patches of ground after a shower of rain, particularly on the waterbound macadam road round Rajdaha Reservoir. On 3-8-47 at Rajdaha Reservoir I only came across two and caught them both together, one was an aberration, and almost identical to the aberration caught in the Nilgris by M. A. Wynter-Blyth. (See vol. xlv, No. 4, August 1944, pp. 538 and 601.)
 Description of mine.
 'Upperside of forewing, 4th band missing, small faint spot above subcostal vein in place of missing band. Band 2 in cell narrow and faint. Upperside hindwing two bands narrow. Rest markings similar to aberration described by Wynter-Blyth. Expanse 66 mm.'
13. (A6.3β) *Zelides doson eleius* Fr.
 Not common, may be taken in jungle flying along narrow waterbound macadam roads particularly after a shower of rain. I have come across this butterfly in the month of September.
14. (A 6.8β) *Zelides agemmemnon agemmemnon* L.
 A distinctly rare species.

PIERIDAE.

15. (B 1.β) *Leplosia nina nina* F.
 Very common in thick jungle, but are rather inclined to be smaller than usual. Available throughout most of the year.
16. (B2.2↵) *Huphina nerissa evagete* Cr.
 Common over the whole province.
17. (B10.6β) *Appias albina darada* Fd.
 Very common most of the year.
18. ♀ v. *semiflava* Fr.
 19. (B11.1) *Catopsilia crocale* Cr.
 20. (B11.2) *Catopsilia pomona* F.
 21. ♀ v. *catilla* Cr.
 22. (B11.4) *Catopsilia pyranthe minna* Herbst.
 23. (B11.5) *Catopsilia florella gnoma* F.
 All are common except v. *catilla* and *florella*. The commoner ones appear in abundance during the rains.
24. (B15.1) *Terias libythea* F.
 Abundant all over the province.
25. (B15.2↵) *Terias laeta laeta* Bdv.
 Very common particularly around Rajdaha Reservoir.
26. (A15.4↵) *Terias blanda silhetana* Wall.
 27. (B15.5↵) *Terias hecabe simulata* M.
 28. (B15.5y) *Terias hecabe hecabe* L.
 29. (B20.3) *Parononia valeria hippia* F.
 This insect only appeared in late September, and was common; obviously a new brood because all specimens were very fresh. The male is rare.

30. (C2.9) *Danaïis limniace mutina* Fruh.
Common before and after the rains.
31. (C2.12) *Danaïis plexippus* L.
Common before and after the rains.
32. (C2.15) *Danaïis chrysiippus* L.
Common throughout the Province.

SATYRIDAE

33. (D2. 9♂) *Mycalesis perseus typhlus* Fruh.
34. (D2.10♂) *Mycalesis mineus polydecta* Cr.
35. (D2.12♂) *Mycalesis visala visala* M.
These species are all common in jungle, I have also seen *perseus* many miles from jungle.
visala is not common.
36. (D3.21) *Lethe europa ragalva* Fruh.
Rajdaha Reservoir, 29-8-47.
37. (D3.22♂) *Lethe rohria nilgiriensis* Guer.
Not common, difficult to find, habitat jungle.
38. (D14.10) *Ypthima ceylonica* Hew.
Rajdaha Reservoir, 9-11-47. Fairly common.
39. (D14.11♂) *Ypthima hubneri hubneri* Kirby.
Muri, 31-10-47. Fairly common.
40. (D16.β) *Orsotrioena medus medus* F.
Not common.
41. (D22.1) *Melantis leda ismene* Cr.
Very common in thick jungle.

NYMPHALIDAE

42. (F1.2β) *Charaxes polyxera imna* But.
Only to be seen in thick jungle, flies very fast and extremely difficult to catch. I caught two in the jungles at Rajdaha Reservoir, one on 31-8-47 and one on 21-9-47. They will be seen on the Ranchi Muri Ghat at lower elevations, in June to September. This butterfly is distinctly rare.
43. (F1.2δ) *Charaxes polyxera hierax* Fd.
I had difficulty in classifying the correct race of this butterfly, on account of the area being on the border line between Peninsular India and the N.-E. India area. I was also not able to send the specimen to my friend M. A. Wynter-Blyth for checking. I have since discussed this insect with Brigadier Evans in London, and he informs me that it is *hierax*.
This butterfly is not rare at Rajdaha Reservoir, and I have seen it on several occasions in jungle districts. It is to be found mostly on damp sand. Bear droppings are certain bait. I caught six within an hour on 27-6-47 at Rajdaha Reservoir, another three on 3-8-47. Also seen on 22-8, 24-8, 14-9, 21-9, 12-10, 19-10, 9-11-1947. A very fast flier and unlikely to be taken in flight.
44. (F2. 2γ) *Eriboea athamas athamas* Db.
Not common, found on river beds and damp sand. Rajdaha Reservoir, 28-9-47. Observed between June-September.
45. (F18. 14γ) *Euthalia garuda anagama* Fruh.
Very rare, first observed at Rajdaha Reservoir, on 9-11-47.
46. (F18. 28) *Euthalia nais* Forst.
A very common butterfly in Bihar, found on the plains and in thick jungle. Flies low, easy to catch.
47. (F24. 7γ) *Limnitis procris procris* Cr.
Fairly common, to be found along river beds and likes settling on damp sand. Appears after the rains.

48. (F25. 4a) *Pantoporia selenophora kanara* Evans.
Not common, appears in October.
49. (F25. 14) *Pantoporia perius* L.
Rajdaha Reservoir on 26-10-47. Rare.
50. (F26. 1β) *Neptis columella ophiana* M.
Caught on 5-10-47, 12-10-47, 26-10-47. Rare.
51. (F26. 2β) *Neptis jumbah jumbah* M.
Rare, appears after the rains.
52. (F26. 6a) *Neptis hylas varmona* M.
Common.
53. (F26. 7β) *Neptis soma soma* M.
Rajdaha Reservoir, 2-11-47. A common butterfly, may be taken in hilly jungle districts on the lower altitudes.
54. (F26. 32β) *Neptis hordonia hordonia* Stoll.
Rajdaha Reservoir, 19-10-47, 2-11-47. Not common.
55. (F27. 2a) *Cyrestis cocles cocles* F.
Not common ; appears in October.
56. (F27. 4a) *Cyrestis thyodamas indica* Evans.
Not common.
57. (F30. 1) *Hypolimnias misippus* L.
♀ common everywhere.
♂ not common.
58. (F30.2) *Hypolimnias bolina* L.
Both male and female common, particularly the female. Rajdaha Reservoir locality is best for this butterfly.
59. (F34.2β) *Kallima inachus inachus* Bdv.
I have only seen it at Rajdaha Reservoir during the months of September, October and November, and it is then common. For information to the collector ; it will be taken at a place in the jungle, north side of jungle track between Rajdaha Reservoir and Bbikhnadhi village, about a quarter of a mile from the reservoir. Fond of settling on trunks of trees.
60. (F35.1a) *Precis hierta hierta* F.
61. (F35.2a) *Precis orithya swinhoei* But.
62. (F35.3a) *Precis lemonias vaisya* Fruh.
63. (F35.4) *Precis almana almana* L.
64. (F35.5) *Precis allites* L.
65. (F35.6γ) *Precis iphita iphita* Cr.
All are common except 'iphita'. The best month being June. Rajdaha Reservoir is a particularly good place for all the species.
66. (F36.1) *Vanessa cardui*, L.
Rare.
67. (F42.1) *Atella phalanta* Drury.
Very common, may be taken in most places.
68. (F49.1β) *Ergolis ariadne inidica* M.
Common in September at Rajdaha Reservoir, is not common elsewhere in the Province.
69. (F52) *Telchinia violae* Feb.
Very common, particularly on the plains after the monsoon. It was late in appearing at Rajdaha Reservoir. Brood generally over by mid-October, a few may be seen after October.

ERYCINIDAE

70. (G4.5 β) *Abisara echerius suffusa* M.
The only Erycinidae in Bihar, and is fairly common. To be found only in thick jungle. It is common at Johna Falls. July to September best months.
71. (H11.1) *Castalius rosimon rosimon* F.
Common at Rajdaha Reservoir.
72. (H11.2 β) *Castalius caleta decidia* Hew.
Rare, only appeared in October.
73. (H12.4) *Tarucus callinara* But.
A most difficult genus to identify, some of those caught were marked like *nigra* above and *callinara* below.
74. (H12.5) *Tarucus theophrastus indica* Nov.
Not common, may be taken at Ranchi.
75. (H12.6) *Tarucus extricatus* But.
Appeared common on 3-8-47 at Rajdaha Reservoir.
76. (H12.8) *Tarucus nigra* BB.
Common at Rajdaha Reservoir in August.
77. (H12.9) *Tarucus nara* Koll.
See remark against *callinara*. Those resembling *callinara*, *nara*, *extricatus* and *nigra* are very common butterflies at Rajdaha Reservoir during the months of July, August and September.
78. (H13) *Syntarucus plinius* F.
Difficult to find. May be taken in August.
79. (H21.2 β) *Lycaenopsis puspa gisca* Fruh.
A rare butterfly in this Province, one specimen caught at Angara P.W.D. Inspection Bungalow, Ranchi-Muri Road, on 19-8-47. One caught on the following dates, 21-9-47 and 28-9-47, at Rajdaha Reservoir.
80. (H23.a) *Chilades laius laius* Cr.
Not common, available at Rajdaha Reservoir in August.
81. (H24.1a) *Zizeeria trochilus putli* Koll.
Very common along the banks of the Domodar River away from trees; appears in abundance after the commencement of the rains. It is then to be seen for about a month, but afterwards only occasionally.
82. (H24.3 β) *Zizeeria maha maha* Koll.
83. (H24.4) *Zizeeria lysimon* Hub.
84. (H24.5) *Zizeeria gaika* Trimen.
All common, along the banks of the Domodar River, south of Dhanbad.
85. (H24.6a) *Zizeeria otis decreta* But
Very common after the commencement of the rains; prefers to fly above new grass.
86. (H25.1) *Euchrysops cnejus* F.
12th October, 1947.
87. (H25.3 β) *Euchrysops pandava pandava* Hors.
88. (H26.1a) *Lycaenestes emolus emolus* God.
89. (H26.2a) *Lycaenesthes lycaenina lycaenina* Fd.
Not common; caught in August.
90. (H27.1) *Catalachrysops strabo* F.
Rather a rare butterfly, not easy to find.
91. (H28) *Lampides boeticus* L.
Uncommon, to be found at Rajdaha Reservoir.
92. (H29.5 β) *Janides celeno celeno* Cr.
93. (H29.9 β) *Janides alecto eurysaces*. Fruh.
Available in hilly districts of South Bihar, flies in September,